

CLAIMS:

1. An information distribution apparatus for transmitting distribution information as real-time information, comprising:

5 distribution means for transmitting the distribution information in real time to a receiver terminal;

distribution information storage means for separately storing the distribution information to be transmitted by the distribution information;

10 interruption information storage means which, in the event that transmission of distribution information from the distribution means to a certain receiving terminal is interrupted, stores specific information for specifying a position on the distribution information where interruption has arisen; and

15 re-distribution means which, in response to a request from the receiving terminal, loads from the distribution information storage means partial information which constitutes a portion of the distribution information stored in the distribution information storage means and is subsequent to a position specified by specific information that is stored in the interruption information storage means, and which transmits the partial information.

20 2. The information distribution apparatus according to claim 1, wherein the re-distribution means transmits the partial information at a speed faster than that at which the distribution means transmits distribution information in real time.

25 3. The information distribution apparatus according to claim 1, wherein the information distribution apparatus further

comprises

interruption sensing means for sensing that transmission of distribution information from the distribution means to a certain receiving terminal has been interrupted; and wherein, when the sensing means has sensed occurrence of interruption in transmission, the interruption information storage means stores specific information for specifying a position on the distribution information where interruption has arisen.

4. The information distribution apparatus according to claim 1, wherein the specific information for specifying a position on distribution information where interruption has arisen is stored in the interruption information storage means, in association with receiver information for specifying a receiver and distribution information specification information for specifying interrupted distribution information; and, when a re-distribution request has been issued by the receiving terminal, the re-distribution means detects the distribution information specification information in accordance with the receiver information output from the receiving terminal and transmits the partial information pertaining to the distribution information specified by the distribution information specification information.

5. The information distribution apparatus according to claim 2, further comprising:

time information sensing means for sensing time information pertaining to when the distribution information is distributed in real time; and

changeover means which stops re-distribution operation performed by the re-distribution means and switches operation

to real-time distribution by means of the distribution means when time information pertaining to the distribution information that has already been distributed by means of the re-distribution means has caught up with time information  
5 pertaining to real-time distribution sensed by the sensing means, as a result of re-transmission of distribution information performed by the re-distribution means.

6. The information distribution apparatus according to claim 2, wherein the information distribution apparatus further  
10 includes update means for updating specific information stored in the interruption information storage means to time information about the distribution information that has already been distributed by the re-distribution means.

7. The information distribution apparatus according to claim 2, wherein the re-distribution means transmits an  
15 undistributed portion of the distribution information stemming from interruption such that transmission of the distribution information is completed when real-time transmission of the distribution information performed by the distribution means  
20 ends.

8. An information distribution apparatus for transmitting distribution information as real-time information, comprising:  
input means for entering the distribution information;  
distribution means for transmitting in real time to a  
25 receiving end the distribution information that has been entered by way of the input means to a receiver terminal;  
distribution information storage means for separately storing the distribution information that has been entered by way of the input means;

interruption information storage means which, in the event that transmission of distribution information from the distribution means to a certain receiving terminal is interrupted, stores specific information for specifying a position on the distribution information where interruption has arisen; and

re-distribution means which, in response to a request from the receiving terminal, loads from the distribution information means partial information which constitutes a portion of the distribution information stored in the distribution information storage means and is subsequent to a position specified by specific information that is stored in the interruption information storage means, and which transmits the partial information.

9. The information distribution apparatus according to claim 8, wherein the re-distribution means transmits the partial information at a speed faster than that at which the distribution means distributes distribution information in real time.

10. The information distribution apparatus according to claim 8, further comprising:

time information sensing means for sensing time information pertaining to when the distribution information is distributed in real time; and

changeover means which stops re-distribution operation performed by the re-distribution means and switches operation to real-time distribution by means of the distribution means when time information pertaining to the distribution information that has already been distributed by means of the re-distribution means has caught up with time information

pertaining to real-time distribution sensed by the sensing means, as a result of re-transmission of distribution information performed by the re-distribution means.

11. An information distribution apparatus for  
5 transmitting distribution information as real-time information, comprising:

input means for entering the distribution information;  
distribution means for transmitting the distribution  
information to a receiving end;

10 distribution information storage means for separately storing the distribution information that has been entered by way of the input means;

15 interruption information storage means which, in the event that transmission of distribution information from the distribution means to a certain receiving terminal is interrupted, stores specific information for specifying a position on the distribution information where interruption has arisen; and

20 a controller which stores into the distribution information storage means the distribution information that has been input by way of the input means and controls the distribution means so as to transmit the distribution information in real time when transmission of the distribution information to the receiving terminal is not interrupted; and which stores the  
25 specific information into the interruption information storage means when transmission of distribution information to a certain receiving terminal is interrupted, which loads, when a request is issued by the receiving terminal, partial information from the distribution information storage means, the partial

information constituting a portion of the distribution information stored in the distribution information storage means and being subsequent to a position specified by specific information stored in the interruption information storage means, and which controls the distribution device so as to distribute the partial information.

12. The information distribution apparatus according to claim 11, wherein the controller loads partial information from the distribution information storage means at a speed faster than that at which distribution information is to be transmitted in real time.

13. The information distribution apparatus according to claim 11, wherein the controller controls the distribution means such that partial information is transmitted at a speed faster than that at which the distribution information is to be transmitted in real time.

14. The information distribution apparatus according to claim 11, wherein the controller has a function of sensing that transmission of distribution information from the distribution means to a certain receiving terminal has been interrupted; and wherein, when having detected that transmission has been interrupted, the controller stores, into the interruption information storage means, specific information for specifying an interrupted position on the distribution information.

15. The information distribution apparatus according to claim 11, wherein, when storing the specific information into the interruption information storage means, the controller stores the specific information in association with receiver information for specifying a receiver and distribution

information specific information for specifying interrupted distribution information; and wherein, when a re-transmission request has been issued by the receiving terminal, the controller detects the specified distribution information in accordance with the receiver information output from the receiving end and information stored in the interruption information storage means and transmits the partial information about the specified distribution information.

16. The information distribution apparatus according to claim 12, wherein, when loading the partial information from the distribution information storage means, the controller decimates the partial information.

17. The information distribution apparatus according to claim 12, wherein, when time information about the distribution information that has already been transmitted by the distribution means has caught up with time information about the distribution information which is transmitted in real time, as distribution of the partial information, the controller stops distribution of the partial information and switches operation to real-time distribution of the same.

18. The information distribution apparatus according to claim 12, wherein, when a portion of the partial information has been transmitted, the controller updates specific information stored in the interruption information storage means to time information pertaining to the end position of the partial information.

19. The information distribution apparatus according to claim 12, wherein the controller loads partial information from the distribution information storage means such that

distribution of an undistributed portion of the transmission-interrupted distribution information ends when real-time transmission of the distribution information performed by the distribution means is completed.

5           20. The information distribution apparatus according to claim 14, wherein, when, as a result of distribution of the partial information, time information about the distribution information that has already been distributed by the distribution means has caught up with time information about  
10 real-time transmission of the distribution information, the controller stops distribution of the partial information and performs switching operation so as to distribute distribution information in real time.

15           21. The information distribution apparatus according to claim 14, wherein, when the partial information has been partially transmitted, the controller updates the specific information stored in the interruption information storage means to time information pertaining to an end position of the partial information.

20           22. The information distribution apparatus according to claim 14, wherein the controller controls the distribution means such that distribution of an undistributed portion of the transmission-interrupted distribution information ends when  
25 real-time transmission of the distribution information performed by the distribution means is completed.

          23. An information distribution apparatus for transmitting distribution information as real-time information, comprising:

          distribution means for transmitting the distribution



information to a receiving end;

distribution information storage means for separately storing the distribution information that has been entered by way of the distribution means;

5 interruption information storage means which, in the event that transmission of distribution information from the distribution means to a certain receiving terminal is interrupted, stores specific information for specifying a position on the distribution information where interruption has  
10 arisen; and

a controller which stores into the distribution information storage means the distribution information that has been input by way of the input means and controls the distribution means so as to transmit the distribution information in real time when transmission of the distribution information to the  
15 receiving terminal is not interrupted; and which stores the specific information into the interruption information storage means when transmission of distribution information to a certain receiving terminal is interrupted, which loads, when a request  
20 is issued by the receiving terminal, partial information from the distribution information storage means, the partial information constituting a portion of the distribution information stored in the distribution information storage means and being subsequent to a position specified by specific  
25 information stored in the interruption information storage means, and which controls the distribution device so as to distribute the partial information.

24. The information distribution apparatus according to claim 23, wherein the controller loads partial information from

the distribution information storage means at a speed faster than that at which the distribution information is to be transmitted in real time.

5 25. The information distribution apparatus according to claim 23, wherein the controller controls the distribution means such that partial information is transmitted at a speed faster than that at which the distribution information is to be transmitted in real time.

10 26. The information distribution apparatus according to claim 24, wherein, when loading the partial information from the distribution information storage means, the controller decimates the partial information.

15 27. The information distribution apparatus according to claim 24, wherein, when, as a result of distribution of the partial information, time information about the distribution information that has already been distributed by the distribution means has caught up with time information about real-time transmission of the distribution information, the controller stops distribution of the partial information and  
20 performs switching operation so as to distribute distribution information in real time.

25 28. The information distribution apparatus according to claim 25, wherein, when, as a result of distribution of the partial information, time information about the distribution information that has already been distributed by the distribution means has caught up with time information about real-time transmission of the distribution information, the controller stops distribution of the partial information and performs switching operation so as to distribute distribution

information in real time.